BETTER FARMING METHODS

JULY 1961
A WATT PUBLICATION
★★★

Specialized Magazine for Agricultural CHANGE-AGENTS

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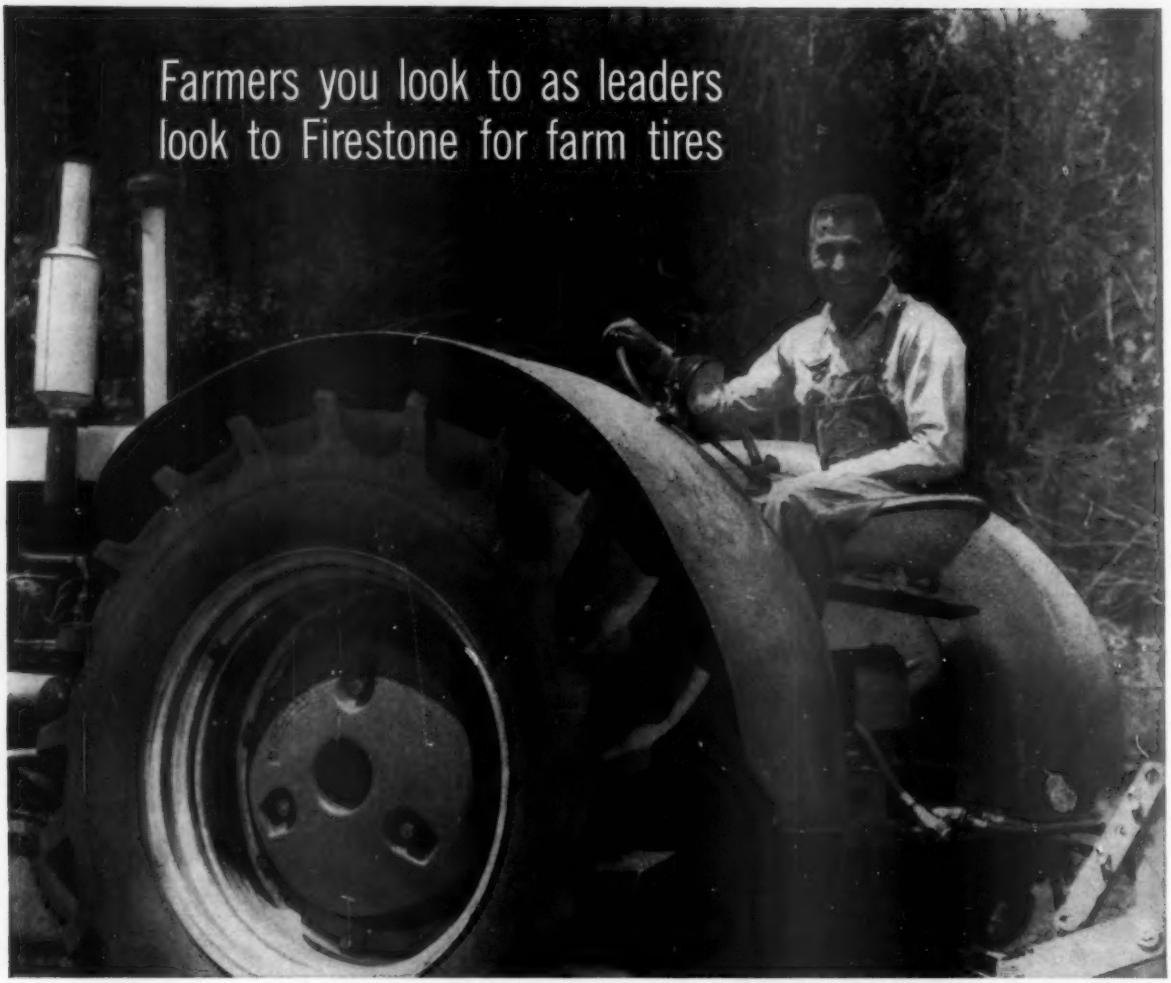

Wheatman Don Schafer of Sterling, Kansas

Kansas began earning her "Wheat State" reputation in 1874—when a variety of wheat called Turkey Red was introduced. This hardy, drought-resistant grain grew so well in Kansas that wheat production soon ran far ahead of record yields of "old king corn."

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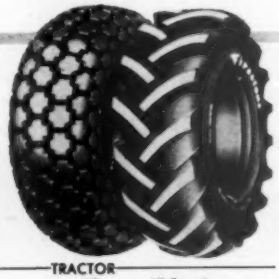

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The Churches operate a 455-acre dairy farm with 75 cows, near Woodburn, Ky., and raise their own feed and other crops. They prefer Texaco Products for fueling and lubricating their costly farm equipment. They like the lively power of Fire Chief gasoline for tractor and truck operation.

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SHOWN IN PHOTO *(left to right) are Roy Phillips, manager of the Texaco Consigneeship at Bowling Green, Ky., W. E. and B. E. Church.*

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JULY 1961

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features

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Our story is seldom read or understood by the readers of city newspapers. It is possible to do something about this and encourage better understanding.

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GOVERNMENT MOVES TO HELP LOW-INCOME RURAL AREAS ..... p. 16

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From the house station your wife can "hold" an outside call while she talks with you on the intercom—then she can relay your instructions, or you can pick up the telephone and speak directly to the caller. This helps make your wife a business partner rather than a messenger. She stays in the house—you and your help stay on the job.

Interphone gives you
outdoor loudspeakers where you need them

This Interphone feature keeps you in touch when you're outdoors around the farmstead. You can be called over this loudspeaker—and you can answer back "hands free" from considerable distance. The loudspeakers also allow a person in the house to monitor disturbances around the farm.

Interphone also gives you
these extra benefits

1 Interphone keeps you in the driver's seat. Use it to instruct hired help or locate a person around the farmstead. Everyone knows what he's supposed to do. So, you get more done in a day.

2 In an emergency a person on an Interphone farm can make his voice heard all over the farmstead through one or more stations. You can't put a dollar value on this benefit.

3 A multitude of day-to-day Interphone uses makes farm living more pleasant than ever before. It's used to trade information, keep track of the youngsters, call the family to dinner.

Farm Interphone was designed exclusively for farm use. It can save many times its cost by helping you make the most of your time and opportunities.

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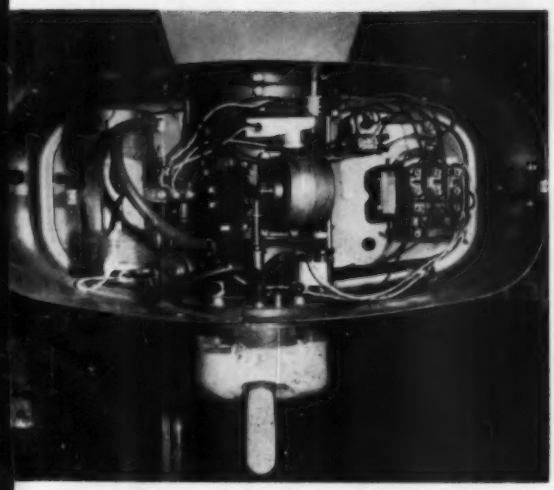


KEEPING AHEAD

You're looking at the interior of a mechanical cow that does everything but moo. This feeder, called Nurs-ette and manufactured by K & K Manufacturing, Minneapolis, Minn., automatically mixes a formula of milk-replacer powder and warm water, then feeds it to the calf. The feeder dispenses only a half-pint of formula at a time, then waits four minutes before another portion is released. "Brains" of the non-mooing mother are four precision switches made by the Micro Switch Division of Minneapolis-Honeywell.

More Than One Way to Get Top Net Income

A recent University of Illinois study compared farms with 90 percent of their tillable land in corn and soybeans and another group with 67 percent in these crops. Soil quality was similar on all farms. In 1959 and 1960, the management profits on these two groups of farms were about the same.

Crop yields averaged slightly lower and fertilizer costs ran much higher on the heavily cropped farms. The added costs, however, were covered by added returns from more total bushels of cash grain crops. On the less intensively cropped farms, livestock provided additional returns to make up for part of the lower returns from grain sales. It was suggested that a farm plan including uses for labor, buildings and operator's management know-how the year around is likely to mean the highest net farm income in the next few years.

Plan for Estate Settlement Costs

The estate you leave when you die may need some ready cash or other assets to pay estate settlement costs, according to economists at Iowa State University.

They examined the records of 113 property estate settlements of Iowans who died during 1948 to 1954. For the cases studied, the cost of settling an estate averaged about $1,200 plus approximately $45 for each $1,000 of gross value of the estate. Based on this formula, a $40,000 estate would need about $3,000 to pay for the direct settlement costs. In addition, the tax costs and debts outstanding against the property still would have to be paid.

Grain Feeding Steers on Pasture

Will it pay to feed steers grain on pasture? Researchers at Virginia Polytechnic Institute have the results of five years work on this problem. They found that good grade yearling steers on good pasture fed 20 bushels of corn will produce carcasses grading good by the end of the pasture season. This will be profitable two-thirds of the usual cattle cycle, especially when fat cattle show a good margin over feeder prices.

Plant Chemicals May Find Way Into Insecticides

University of Wisconsin entomologists are studying the chemicals which give natural resistance to corn borers for clues about their ability to kill or repel insects and fungi. They have synthetically produced more than 50 variations of one of the natural chemical resistance factors found in corn. The new synthetic variations act differently on insects and fungi — some are even more powerful than the original material.

If this resistance factor is found to be hereditary, plant breeders may someday be able to develop plants which are highly resistant to corn borers and certain fungi. The chemical itself might find certain uses in insecticides or fungicides.

Growing Potatoes on the Surface

For the past two years Britain has been testing the feasibility of growing potatoes on the surface of the soil. Success in this venture would solve one of the great problems of farming — the efficient mechanical harvesting of potatoes, for with virtually no soil to separate from the potatoes the entirely mechanized lifting of a clean and undamaged crop would then be possible.

The trials, sponsored by the National Institute of Engineering in Bedfordshire, England, have explored the use of an artificial cover of opaque material such as black polyethylene film.

Search for New Crop Drying Methods

Michigan State University engineers are looking for better ways to dry grain crops with infrared heat sources. Radiation drying by infrared energy is faster, but efficient ways of using it still are being developed.

The most common infrared heating source has been the electric heat lamp. The main advantage of infrared drying is that it is so fast. In fact, products can be heated so fast that they are damaged. The time for drying grain from 35 to 15 percent moisture can be reduced from about 90 minutes with a hot-air system to about 20 minutes with an infrared-energy system.

With convectional drying, air warmed by a heat source is circulated around a product to be dried, but with infrared drying the product is heated directly by infrared energy which moves from the heater to the product being dried.

Cattle Gains Speeded by Frequent Feeding

Cattle feeders who have automatic feeding equipment can increase rate of gain if they feed oftener than twice a day. A University of Illinois experiment compared feed intake, rate of gain and feed efficiency of cattle fed at four-hour intervals with cattle fed twice a day. Those fed six times a day gain an average of 1.87 pounds daily as compared with 1.55 pounds for the cattle fed twice a day at 8 a.m.

IN AGRICULTURE

- **Frequent Cattle Feeding with Automatic Equipment Can Increase Rate of Gain**
- **Researchers Work to Develop Forage Plants with High Energy Values**
- **Possibility That May Someday Have a Corn That is Highly Resistant to Borers**
- **High Yielding Soybean Crop May Remove More Soil Nutrients than a Corn Crop**

and 5 p.m. A timer on the completely automatic machine turned the feeder on every four hours starting at 4 a.m. Another timer turned the feeder off when the needed amount of feed was in the bunk. Feed thus was limited to the amount that each lot would clean up after a reasonable length of time. Researchers put a light over the feed bunk so the cattle would eat at night. After a few days, the animals went to the machine as soon as it clicked on.

Breakthrough in Battle Against Bloat

Scientists at the Maryland Agricultural Experiment Station announce a breakthrough in the battle against bloat of cattle and sheep. Working on the theory that bloat represents an inhibition of the belching mechanism through nervous control of the rumen, scientists used drugs to produce bloat in 42 animals.

From the results of this work, researchers became interested in the possibility that something in bloat producing forages, such as alfalfa, would give the same action they got with drugs. And this was confirmed in subsequent experiments. We now have good indications, say Maryland researchers, that there are compounds naturally occurring in green legumes which will have the same effects in the animals as the drugs which we injected.

Research Must Be Continuous

Curtailing research in agricultural production is not the answer to the U. S. food surplus problem, according to a Cornell University research director. Any cut-off of this type of research for even a few years would be "disastrous," Director W. Keith Kennedy of the New York State College of Agriculture maintains.

"Research programs cannot be turned on and off like faucets. It takes 10 years of continuous research just to develop one new forage variety. One year lost might mean a delay of several years at best," he stated.

Reducing Market Risks

A survey of 44 Kentucky hog producers indicated that for operators of larger-scale farms, the question of price fluctuation may not rank very high in regard to choice of enterprise, time of marketing, or other decisions made in marketing farm products. Over 95 percent of the group indicated that they preferred to accept the risk of price fluctuation in preference to making advance marketing contracts.

Dairy Feeds With High Energy Kicks

Forage plants with a high energy kick for cows comparable to that of high octane gas for cars is one of the goals of current Washington State University agronomy research.

Crux of the problem is a plant substance called lignin. Lignin is to feed what carbon deposit is to fuel. Both gum up the works and cut go-power. That means lignin cuts meat and milk yield per pound of feed. Lignin is a woody fiber that cattle can't digest even with four stomachs, or to be more exact, a four-part stomach. The studies now underway at WSU hope to pinpoint every possible factor that might raise or lower lignin content.

Soybean Yields Can Be Increased

Searching for ways to increase soybean yields, soil scientists at the University of Missouri have come up with some interesting facts. Studies made show that soybeans are large users of plant nutrients and make heavy demands on the soil for calcium, magnesium, phosphorous and potassium. In fact, a high yielding soybean crop may remove more soil nutrients than a similar corn crop. Therefore it is important to maintain a high fertility in their soils.

Tests show that calcium furnished by limestone is the foundation for building up and maintaining the fertility in soil. When calcium is lacking in the soil, soybean plants have shown a distinct nitrogen deficiency which results in lower yields. Furthermore, other plant nutrients may be restricted because of this lack of calcium. One of the trace elements essential for proper plant growth is molybdenum. It was discovered that proper lime treatment of the soil will release sufficient molybdenum to satisfy the plant's need. These experiments again point out the importance of lime.

Weed Killers May Promote Crop Growth

Farmers today consider 2,4-D and similar chemicals their friends in the constant fight against weeds. Yet farmers of tomorrow may use some of these same chemicals to boost crop growth and yields. Minute proportions of these chemicals have increased yields of the common bean more than 10 percent above average in University of Illinois tests.

Maleic hydrazide (MH) and 2,4-D were tested on snap beans. This combination slows up top growth, increases growth of side branches and causes a larger pod set. The result is more uniform yields without much delay in maturity. And the nutritional value of the bean is improved.

AGRICULTURE'S UNTOLD STORY

The nation's biggest news story concerns the changes taking place in rural America. Misunderstanding between the city and country will continue while the story remains untold.

by John P. Millhone

The Detroit Free Press

FARMERS ARE THE world's greatest bellyachers. They all drive new cars and have money in the bank. They cling to an unfair share of state and federal lawmakers. They use this power to line their own pockets by getting give-away legislation passed. The city people pay the bill in higher prices for food and higher taxes.

That is a city person's point of view. A farmer might return the tribute this way:

The labor unions, through a ceaseless clamoring for more money, are causing an inflation that is ruining the farmer. Food prices are going up, but it is the supermarkets and the middlemen who are getting the money. The farmer gets less and less. City people blame the farmer for everything. The urban press doesn't understand the farm problem and it doesn't try to.

Both profiles are false. But many people believe them fiercely. This points to a critical separateness between those who produce the nation's food and fiber and those who use it.

Here is how one metropolitan news writer views this separateness, how it came about, why it persists, why it is dangerous, and what farm people might do to help change it.

The changing coverage by metropolitan newspapers of farm news has reflected the migration to the cities. Fifty years ago farm stories were mixed with other items throughout the newspaper. Then came an increasing preoccupation with big business, big money, big labor, big league baseball. Farm coverage was slowly squeezed out.

The 1930's gave birth to the newspaper experts, the labor, aviation and education writers, and not infrequently, the farm editors. However, the rebirth of a rural concern in the past 20 to 30 years hasn't been to inform all of the newspapers' readers about significant agricultural events. It has been due largely to the competition for newspaper sales in rural areas, where the decline in the number of outstate newspapers often has exposed fertile ground to the large dailies.

Most of the rural stories that farm people read in the metropolitan newspapers are never seen by city readers. The big dailies print several different editions every day and the farm stories customarily are lumped together on one or two pages of those editions sent outside the metropolitan area.

Hungry For Any Copy

The state editors and farm editors who deal with the news for these outstate pages usually are working against a pressing production problem. They have to fill a large amount of space every day, so they have to rely heavily on handouts, wire service copy, spot news stories called in by correspondents and the articles that can be wrapped up with one of two telephone calls. They have little time for depth or interpretive reporting. They are writing for a rural readership so they don't need to worry with explaining what farm events mean to city people.

The effect of this is that city dwellers have very little exposure to what is taking place in agriculture.

There are many reasons why farm and city events cannot be so cleanly divorced.

First, it hinders the solution of political questions, which don't fit snugly into either farm or urban cubbyholes. Rural and city lawmakers are forced to consider each other's concerns. Only about half the U. S. Department of Agriculture's budget should be assessed against farmers, but this three billion dollars is a heavy public subsidy. If anything like this amount is to be spent in the future, rural interests will have to do an improved

job of explaining the need for the farm programs. This will be particularly true after 1962 with the shift in political power resulting from redistricting based on the 1960 census.

Secondly, the changes brewing in rural areas already are strongly affecting city people and this may increase greatly in the future. Involved are such questions as: Will displaced farmers continue to pour into the country's overloaded labor force? Will farmers bind themselves into unions that bargain collectively and threaten food strikes? Will the family farm be replaced by food-producing corporations? What will happen to food prices? Will farm poverty drag down the rest of the economy?

These questions embrace one of the nation's biggest news stories and this story isn't being adequately covered.

Recognition of this has led farm leaders to talk about improving the farmer's image and to concern about how to tell agriculture's story. Ironically, many city newsmen would like to provide broader coverage of agriculture. But these farm leaders and the newsmen seldom get together.

How To Tell The Story

Both groups are to blame. The newspapers have a responsibility to report what is important and the farm story is important. Farm people could do a much better job of presenting their news so metropolitan newsmen would see its significance and be able to use it.

Assuming a farm leader wants a better break in the urban press, here are some suggestions:

First, talk to the managing editor. Get a small group of farm leaders together and make an appointment. Tell him frankly that you're unhappy with the farm coverage and ask if you can do anything to help improve it. Remind him of such facts as the 35 percent of the labor force in agriculture-related jobs; the large number of urban readers who come from farm areas and are still interested in rural news; and the effect of agriculture on food prices, labor migration, politics and the state's economy.

Get Someone On Your Side

Second, get someone in the newsroom on your side. If there is no farm writer, ask the managing editor if one of his staff writers could be assigned to spend part of his time on farm news. Such a new farm writer would be unbelievably green. He probably would guess that Charles Shuman composed music, that Oren Lee Staley made feed and that Willard Cochrane played baseball . . . or that base transfers was a military term, cobweb analysis involved zoology and cross-compliance meant going along with something that made you mad, which isn't too far afield.

The cultivation of a farm writer is a challenge to education. Send him a stream of literature. A good start is the series, "The Farm Problem . . . What Are the Choices?", prepared by the National Committee on Agricultural Policy and sponsored by the Farm Foundation and the Center for Agricultural and Economic Adjustment. The publication you are now reading does a good job of pinpointing the significant questions in agriculture. Show your farm writer other sources of news — ASC releases, Department of Agriculture information, Extension publications, articles from the land-grant colleges, the publications of farm organizations. . .

Third, pitch news releases for metropolitan newspapers at what they mean to city people. Many releases are still the how-to-do-it advice to farmers. Few farmers depend upon newspapers nowadays for technical infor-

(*Continued on page* 18)

LET'S PUSH RURAL

By G. H. Aull, Head

Department of Agricultural Economics & Rural Sociology, Clemson Agricultural College

NOT LONG AGO the agricultural economists at a Southern college let it be known that all the farming within a 15-mile radius of a nearby town could be carried out — and improved — with some 10,000 fewer workers than were then on farms in the area. A large chemical industry got wind of these figures, checked their accuracy with the economists concerned, and shortly thereafter announced that contracts were being let for construction of a new plant on the outskirts of that town to employ 6,000 people. The plant has been successfully operating for several years.

In the meantime, the country for miles around has experienced a "face lifting". New farm homes have been built with more and better conveniences, new churches have been established with larger programs reaching more people, schools have been modernized and revitalized, roads have been extended and improved, land which had shown signs of "population pressure" has revealed positive signs of healing; and in general, there is a new and better spirit among the people.

To help bring about this transformation, which incidentally is becoming commonplace in many states in the South, requires the cooperation of many individuals and groups. There must be, first of all, a knowledge of the facts. The existtence of under-employment on farms must be established; the adaptability of this labor to new and different skills must be proven; and finally, the need for the proposed new industry must be made clear. Beyond this, however, the proposed new source of employment must be made to feel that it will receive a warm welcome in the area.

There are many ways by which this may be done. In one state, for example, the Highway Department has worked very closely with local development boards, chambers of commerce, and the like to insure that adequate provision will be made for roads in the area. Municipalities have offered to extend their water lines to insure necessary supplies for all purposes, and tax authorities have given complete assurance of "fair" treatment in the matter of assessments, etc.

Of even more importance, however, is the attitude of farmers and others in the area toward developments of this kind. Unless the management of the proposed new enterprise can be accepted as a "good neighbor" the project will likely not materialize and will get off to a bad start if it does.

FOR MORE INDUSTRY!

New industry for rural areas is often opposed by farmers on the grounds that it will increase farm labor costs. Before we accept this narrow view we should know what industry can do for farmers.

For example, in a few instances farmers have actually resisted the coming of new industrial and other employment opportunities on the ground that they disturb the farm labor situation. This is, of course, a narrow view. The "farm labor situation" is at the root of the agricultural problem and will continue to be until large numbers of under-employed farm workers find more productive outlets for their efforts. The closer these "outlets" can be brought to the farm the better for all concerned.

Industries Want to Move

There are many reasons why industries by the hundreds are seeking plant sites in the country. For the most part the advantages of this policy are widely recognized and need no special emphasis from this source. What is not so well understood, however, is that the practice of locating industries in rural areas which provides a "key" to the solution of one of our basic farm problems, needs much more support from farm groups.

Generally speaking, agricultural research has been so successful and the spread of technical information among farm producers has been so thorough that over much of the South all essential farming operations for years to come can be accomplished with a decreasing number of farm workers. Experience has shown, however, that farm people are reluctant to move great distances even though the economic inducements to do so may be substantial.

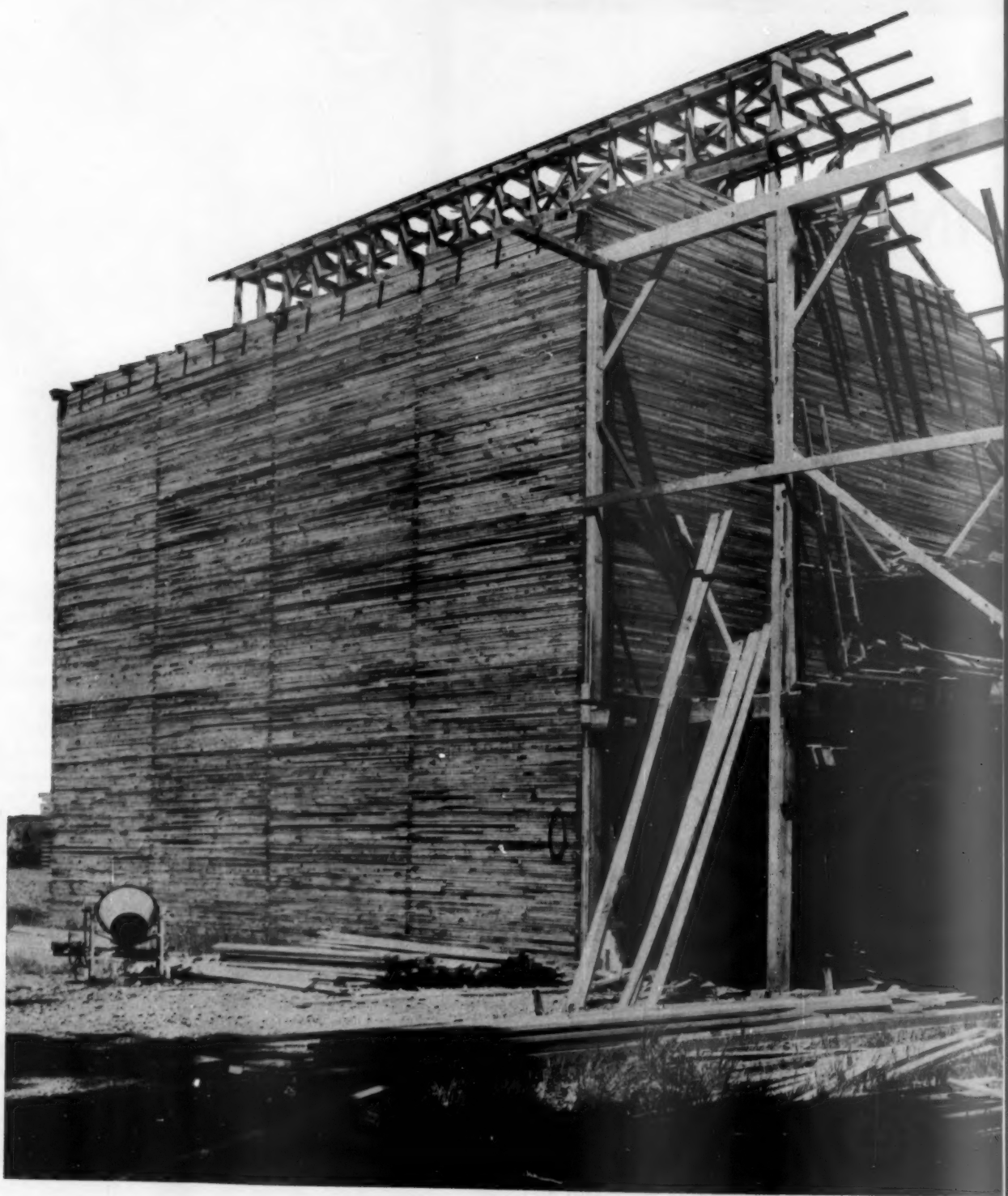
The results have been such that today there are "on farms" many people who are not fully employed and whose incomes are not supplemented by nonfarm employment. Under these conditions, to earn even a minimum level of living from the land it is necessary to engage in farming operations which are heavy users of labor. Even then, returns per man are pitifully small and these are accomplished at the expense of a serious drain on soil and water resources.

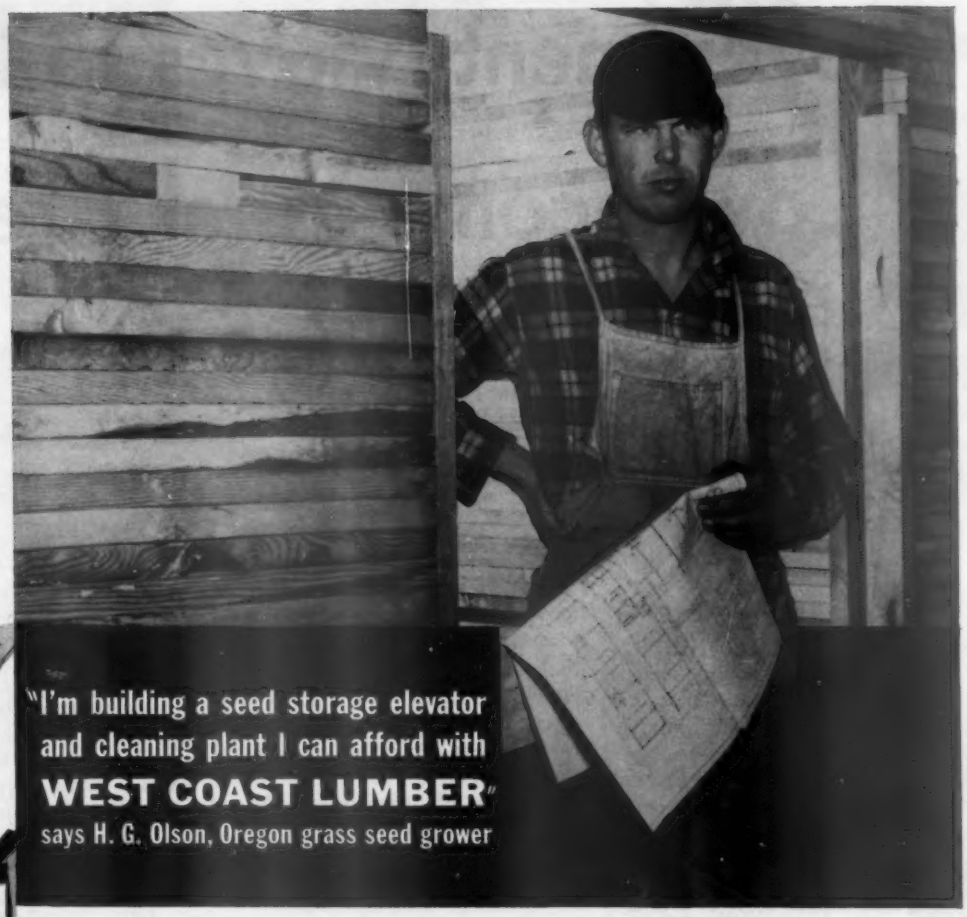
Rural Location Important

The effects, however, are not confined to the land. Before long, public revenue from these areas begins to decline and public institutions find it increasingly difficult to perform their normal functions. This is followed by increased local demand for state and federal aid.

It is obvious, therefore, that the location of

(*Continued on page* 37)





"I'm building a seed storage elevator and cleaning plant I can afford with **WEST COAST LUMBER**" says H. G. Olson, Oregon grass seed grower

"I shopped around for material that would do the job and found that this type of construction which makes use of the lower grades of West Coast Lumber 2x4's saved me 50% in overall cost," Seed Grower Olson continued. "It's an easy type of elevator to build. I hired two common laborers and we have laminated the entire elevator ourselves.

"The laminated construction system is well known and has been used for years. I used about 80,000 board feet of 2x4's and adapted the system to my particular needs. I will have my elevator and three seed cleaners in operation when my seed crops are harvested this fall."

Here is another practical example of the use of lower grades of West Coast Lumber in farm construction. The elevator is 34′ x 48′ with the outside walls going up 32′ and the inside walls are built to 36′. The seed cleaning plant, located on the front of the elevator, is also framed with the lower grades of dimension lumber. The elevator is divided into eight bins and will store approximately 35,000 bushels of rye grass, alta fescue or blue grass seed from Mr. Olson's 1,100 acres.

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Government Moves to Help Low-Income Rural Areas

The new administration has attacked the low-income farmer's problem head-on with two separate actions. The first of these is a new law commonly known as the "depressed areas bill" and the other is the expanded program of Rural Areas Development.

by FRANK WADDLE

● THE NEW ADMINISTRATION in Washington is "locking horns" with a dilemma that has plagued government farm program planners for several years.

It's simply this: Special programs that are designed to help the commercial family farmer get a fair return for his labor and investment do little to help the low-income farmers who don't have enough production to earn a decent living.

Actually, the last administration began the attack on this problem when the Rural Development Program began operating on a pilot basis in 1957. But they were not able to gain sufficient support for the idea to get it out of the experimental stage.

During the past couple of months the new administration has committed itself to a broad-scale attack on the problems of the low-income farmer. Some of these recent actions were not designed primarily to help the low-income farmer but accomplish this objective as a "side effect." Such actions include stepped-up food distribution under Food for Peace, school lunch programs, food stamp plans, and welfare programs.

Two Separate Actions

But the "New Frontier" administration has attacked the low-income farmer's problem head-on with two separate actions in the past few weeks. The first of these is a new law passed by Congress, Public Law 87-27, commonly known as the "depressed areas bill." The second development is an expanded program of Rural Areas Development which will swing the vast resources of the United States Department of Agriculture to the aid of low-income rural areas.

Let's look at each of these developments more closely and see what they may mean to your community.

The first hurdle your community would have to pass to qualify for assistance under this new "depressed areas bill" would be a designation as a redevelopment area by the Secretary of Commerce under standards set down by Public Law 87-27. Assuming you pass the initial test, five broad types of assistance would be available:

1. Loans for industrial and commercial projects.

The Act provides loan funds for 200 million dollars for industrial and commercial projects including the purchase or development of land and facilities, construction of new buildings, and rehabilitation or enlargement of existing buildings. Each project *will require* substantial capital from local sources since the Act provides that the Federal government's share shall not be more than 65 percent.

And, there are several restrictions that could put your community project out of consideration. Among these are:

Federal money can't be used as working capital.

Money can't be used to relocate plants from one area to another.

Financial assistance must not be available from private lenders or other Federal agencies on reasonable terms.

There must be reasonable assurance that you will be able to repay the loan.

Your project must be consistent with the overall economic development program.

2. Loans and grants for public facilities.

The Act provides 100 million dollars for loans and 75 million dollars for grants.

Just what types of public facilities will qualify for these loans and grants has not been determined. The general guideline is that they must facilitate the establishment of industrial or commercial projects.

3. Technical assistance

The Act provides four and a half million for this purpose. This money, it seems, will be used to draw up the overall economic development program which will be required to get loans under other sections of the act.

4. Occupational training

After the development program is drawn up, the Secretary of Labor will study the skills and potentials of the labor force in the area and determine

what vocational training is needed. The Act provides 4.5 million dollars annually for occupational training.

5. Retraining subsistence payments

The Act provides 10 million dollars annually which the Secretary of Labor may use for payments to individuals who are undergoing occupational training. Payments may not exceed an amount equal to weekly unemployment compensation and can't be made for more than 16 weeks.

What Your Community Can Do

These are the technical provisions of the law. Here's what your community can do to take advantage of these five types of assistance:

Establish an active development organization.

Establish working relations with the state economic development agency. (Each of the 50 states has an agency responsible for economic development.)

Develop an overall economic development program. This is a *must* for every community desiring assistance under the Area Redevelopment Act.

Get your economic program in motion by soliciting plant expansions, developing tourist potentials, and the like.

Establish a development corporation with legal authority to finance industrial and commercial projects.

Determine the skills available in your community and what occupational training will be needed.

As you can see from this list of "things to do," this legislation was designed to encourage more action on underemployment problems at the local level.

Rural Areas Development

The 1.5 million "out-of-work" men in rural America can count on more help from the 70,000-strong USDA force. Secretary of Agriculture Orville L. Freeman made this clear when he said:

". . . the Department of Agriculture is justly renowned as a brilliant agricultural service agency. As Secretary of Agriculture, I plan to emphasize in addition those programs of the Department that help promote well-being in entire communities. . .

"Promoting new and better opportunities in rural America will henceforth be a major responsibility of the Department."

Secretary Freeman has already begun mobilizing his forces within USDA for the offensive against rural underemployment. How many USDA personnel will eventually be working in this area is anybody's guess, but a newly appointed Rural Areas Development Board indicates that the Secretary means business. The Board includes members from 11 USDA agencies — the Agricultural Marketing Service, Agricultural Research Service, Commodity Stabilization Service, Economic Research Service, Farmers Home Administration, Farmer Cooperative Service, Forest Service, Rural Electrification Administration, Soil Conservation Service, and Statistical Reporting Service.

Freeman charged this board with the responsibility for **redirecting the programs of the USDA so they will be of greater help to farm communities in developing means for more diversified incomes.**

Several USDA agencies have already stepped up activity in providing for more prosperity in low-income rural communities and towns.

The Farmers Home Administration in recent weeks has stepped up credit programs for rural areas. An additional 50 million dollars is now available for farm housing loans and an additional 35 million dollars for farm operating loans.

The U. S. Small Business Administration and Forest Service have teamed up to help rural counties near national forest land. Small firms buying timber from national forests can

(*Continued on page* 29)

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* * *

Agriculture's Untold Story

(*Continued from page* 11)

mation on how to farm. They want to know how the news will affect food quality. Will it change prices? Will it decrease the use of migrant labor? Will it have any impact on the economy? Many releases that make a quick trip to the wastebasket would be published if pitched toward these questions.

Fourth, be alert for possible farm features. There was a story out of Iowa a few years ago about a farm woman who brought six little piglets into her kitchen to care for them after their mother died. The feature came more than a year later. The six pigs were still in the kitchen. Each weighed upwards of 1,000 pounds. If you could tip off a city newspaper about a story or two like that, it would carry your farm news on the front page the rest of the year.

Fifth, learn to recognize a news picture. Farm photographs are uniformly terrible. All champion livestock is posed in the same stance. All award pictures show one person handing something to another. All group pictures look like they were taken for a high school yearbook.

Farm photographs often include two of the rarest and most photogenic of subjects — good-looking animals and healthy youngsters. Try for different, natural, candid pictures — a two-year-old crawling onto the back of a prize-winning milk cow, a freckled-faced 4-H gal hugging her champion Hampshire. Get close-ups. Use imagination.

Rich News Source

Sixth, don't ignore farm policy and agricultural economics. This is potentially the richest source of farm news. There is a great need for comprehensive and accurate news stories on such subjects as: Will the feed-grain law create a two-price system on corn? Will the National Farmers Organization revolutionize the market system or is it whistling in the dark? How will increasing feedlot operations affect the family farmer? How successful have been labor attempts to unionize farm workers? The list is endless. Too often farm leaders and reporters shy away from these questions as too difficult or too controversial.

This area of news and analysis could provide a bridge between farm and non-farm problems. City people have come to believe the farm problem is some unique rural dilemma that has no connection with urban problems. This isn't the case. Some of the adjustment problems the entire country is facing are now most clearly evident within the farm segment of the economy.

Farmers are faced with the problem of adjustment to an astonishingly fast increase in productivity. Heavy inputs of capital and technology are replacing farm labor. This is basically similar to the stress brought about by automation in industry.

Urban Versus Country

Unemployment in the cities differs little from the underemployment of subsistance farmers. In both cases individuals are producing little or nothing for themselves or society. In the cities as in the country, the unemployed and underemployed are largely the uneducated, the untrained — those poorly prepared for a part in the nation's economy.

These changes are taking place about three times faster in agriculture than in the rest of the economy. Since 1947-49, farm productivity per man hour has increased 90 percent, compared with a 32 percent gain by the nonfarm economy.

This means that changes in agriculture have been compressed into 10 taut years which elsewhere have more comfortably evolved throughout three decades.

Historically, one of the basic adjustments within a society is to economic changes. The farmers are now at the forefront of this adjustment. It would be difficult to overemphasize the significance of what happens in agriculture during the next eight years.

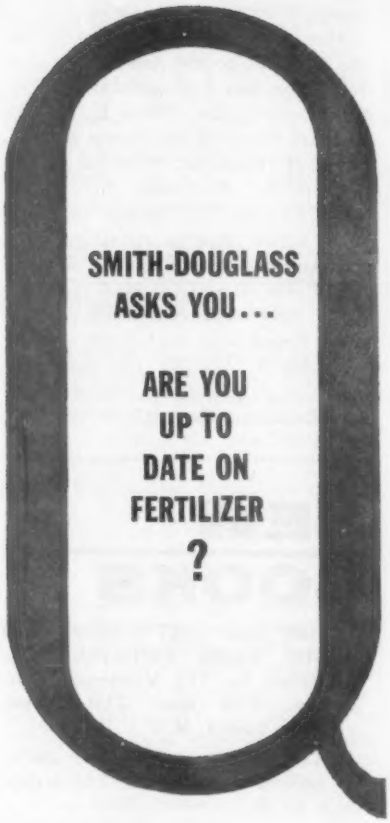
The feed-grain program offers a classic illustration of what is taking place. The Department of Agriculture is attempting to force farmers into a choice between higher income with federal regulation or lower income and more management freedom.

The choice isn't easy. It would be just as wrong to choose freedom sim-

(*Continued on page* 25)

SD SMITH-DOUGLASS NUMBER 4 OF A SERIES

Do the crops in your area need Trace Elements?



Check yourself on the following question. Don't be surprised if you miss. Fertilizers are a rapidly changing part of this business of farming.

Do the crops in your area need Trace Elements?

Unfortunately, when trace element deficiencies can be seen, you have already been penalized by reduced yields.

Soil testing? It's wonderful. But not all areas have adequate tests and recommendations for trace elements. Use them where available, of course.

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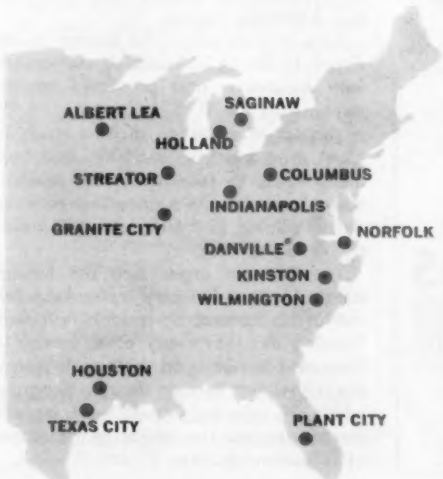

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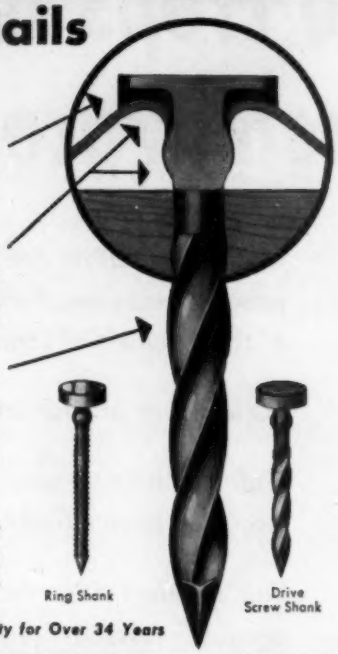

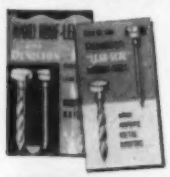

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USDA People Receive Awards

Three scientists and three administrative officials of the U. S. Department of Agriculture recently received Distinguished Service Awards for their accomplishments.

The honorees are: Thomas L. Ayers, Assistant to the Administrator of the Agricultural Conservation Program Service; Dr. Verne L. Harper, Assistant Chief of the Forest Service; Edwin J. Haslerud, Director of the Cooperative Extension Service of North Dakota; Dr. Arthur W. Lindquist, Chief, Insects Affecting Man and Animals Branch of the Agricultural Research Service; Dr. Charalambos S. Stephanides, Agricultural Attache, Republic of the Congo; and Dr. Frederick V. Waugh, Director, Economic and Statistical Analysis Division, Economic Research Service.

NEW BOOKS

THE ONE AND ONLY SOLUTION TO THE FARM PROBLEM, published by The Vantage Press, Inc., 120 West 31st Street, New York 1, N. Y.

AUTHOR: Donald Despain. DATA: First edition, paper bound, 260 pages. PRICE: $1.50.

In a new book just published, Donald Despain, former Commissioner of Labor and Agriculture, speaks out bluntly for the American farmer.

Says the author: "The farmer is accused of being subsidized, patronized with handouts, and protected at the expense of the U. S. taxpayer . . . He is subject to order as to how much to plant, how much to produce, and how much he is to receive for his production . . . resulting in a price-cost squeeze that is ruining him and our basic industry — agriculture.

Mr. Despain urges that the farmer create his own industry by making full use of his natural by-product, alcohol. Pointing out that every other nation in the world has enjoyed this new industry, the author sets forth in detail a program which, if adopted, could well benefit the farmer and the nation to the extent of billions of dollars.

C★★★

"I think it's awfully nice of you to give my son so much — ha ha ha — good advice."

COMING EVENTS

July 30-August 2—Sixteenth Annual Meeting of the Soil Conservation Society of America, Purdue University, Lafayette, Indiana. Contact Walter E. Jeske, Soil Conservation Society of America, 838 Fifth Avenue, Des Moines, Iowa.

August 20-23—American Institute of Cooperation, University of Minnesota, Minneapolis Campus. Contact E. Fred Koller, Professor of Agricultural Economics, University of Minnesota, St. Paul, Minnesota.

September 10-13—68th Annual Farm Equipment Institute Convention, Palmer House, Chicago, Illinois. Contact Douglas Hewitt, Executive Secretary, Farm Equipment Institute, 608 South Dearborn Street, Chicago 5, Illinois.

September 10-14—National Association of County Agricultural Agents Annual Meeting, New York City. Contact Vic Carothers, NACAA Publicity Chairman, 328 P. O. Building, St. Joseph, Missouri.

October 29-November 1—28th Annual Meeting of the National Agricultural Chemicals Association, The Homestead, Hot Springs, Virginia. Contact L. S. Hitchner, Executive Secretary, National Agricultural Chemicals Association, Associations Building, Suite 603-604, 1145 Nineteenth Street, N. W., Washington 6, D. C.

November 12-16—Annual Convention of the American Association of Land-Grant Colleges and State Universities, Muehlebach Hotel, Kansas City, Missouri. Contact Russell I. Thackery, Executive Secretary, American Association of Land-Grant Colleges and State Universities, 1785 Massachusetts Avenue, N. W., Washington 6, D. C.

November 13-14—Agricultural Credit Conference, American Bankers Association, Statler-Hilton Hotel, Dallas, Texas.

November 17-23—National Farm-City Week.

December 2-8—National Vocational Agricultural Teachers Association Convention, Kansas City, Missouri. Contact James Wall, Executive Secretary, NVATA, Waverly, Nebraska.

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Part-Time Farming:

Boon or Bugaboo

H. J. Bonser and C. W. Porter

This feature is adapted from Farm Economics, published by the Pennsylvania State University Extension Service

- **In spite of the increasing specialization in agricultural enterprises, there still will be a substantial number of part-time farmers.**

- **The number of people going into part-time farming depends on the security of employment in non-farm enterprises.**

- **Not all full-time farmers consider themselves in a position to continue investing in technological improvements that enable them to compete. These farmers can make a living plus off-the-farm work.**

● WILL FARMERS CONTINUE to supplement farm income by other productive work in the next few years? Many Americans have been part-time farmers since industrialization began in this country.

This type of agriculture, long a part of the farm economic scene, has been met with varying degrees of enthusiasm over the years. Some hail it as a substantial and secure way of life; to others it is only a curious sociological phenomenon. As an institution, it is berated by some full-time farmers. To industry, it has been used as a "safety-valve" during periods of chronic unemployment. Today, many people wonder whether part-time farming can still exist in these days of greater specialization in agriculture.

For a good many people part-time farming is a way of life — more than an economic necessity. Young families with growing children often find some open land around a home more appealing than the city or its densely settled suburbs. Also in the urban fringe, homes with some acreage can frequently be purchased for less initial investment than comparable housing in towns, thus providing some economic incentive to would-be part-time farmers.

This land is often farmed by the owner, not necessarily to its fullest capacity, but to bring in some income even at low labor and capital return.

Why do people part-time farm when their labor on the farm earns about one-fourth to one-third as much per hour as other work? Studies indicate that for some families the combination of farming with outside work provides a greater total income for the family than either the farm alone or other work alone. There is also a sizeable group who feel it provides a measure of security against unemployment or for retirement. Society has more people who desire farm living than the nation needs or can use as full-time farmers. In other words, the nation now requires barely 5 million farmers, but has many more than this number who would prefer to farm. Some of this excess may find satisfactory adjustment on small, part-time farms.

Adjustment Pressure

Increasingly heavy capital investments are necessary for farmers to keep production costs in line with present-day market prices. Many operators, especially the middle-aged and those on inadequate farms, find part-time working for wages a satisfactory adjustment. These swell the ranks of part-time farmers.

To a small extent, part-time farming is a means of eventually leaving the farm. Occupational histories indicate that some of this movement is true for middle- and upper-middle-aged farmers. Young farm people, however, are more likely to go directly from the farm to other work. A sizeable number of younger middle-aged people from towns go into part-time farming. In such cases the farm provides considerable food and also a wholesome environment for growing children.

Very often part-time farmers are accused of contributing to the farm surplus problem, and of being in this way responsible for low price levels for certain farm products. By and large this is not true. Part-time farmers, while numerous, account for about 2 percent of all market sales of farm products. These part-timers account for about one-third of all farms counted in the U. S. census.

Some part-time operators produce heavily for their own use, and in this way remove themselves as customers of foods they consume. Still, their total contribution to American agriculture is not such as to hold them accountable for overproduction. In more situations than not, their dual source of income keeps these people spending

(*Continued on page* 24)

Big Farms From Little Ones

by Earl O. Heady and Randall A. Hoffman

The process is called consolidation. Recent census figures showed that consolidation has taken place at a rapid rate. Research at Iowa State University has showed that as farms are consolidated, management and yields improve, efficiency increases, but the land still produces the same products.

● AS SOME FARM operators leave farming, their farms often are purchased or rented by remaining operators to enlarge existing units. This consolidation process results in fewer but larger, and often more efficient, farms. But it also results in fewer farmers and a change in the structure of other resources used in farming.

What happens to the structure of farming when farms are consolidated? Do the better managers or the poorer managers leave? Do those who remain use the land more efficiently? Will this consolidating process increase or decrease farm output? How is the general structure or resource use affected.

To answer questions such as these, Iowa State University researchers studied the farms and farm operators involved in the process of consolidation during 1956 in four southwestern Iowa counties.

There were 214 farms involved — 99 farms, whose operators left farming or moved to other units, were consolidated into 115 remaining farms. The average size, before consolidation, of the 99 farms was 160 acres. The average size of the remaining 115 farms was 253 acres before consolidation. After consolidation, the enlarged units averaged 390 acres.

The Substitution

In general, capital and machinery were substituted for labor through the process of consolidation. And the combination of resources changed. The land area remained the same after consolidation, but less total capital was represented by machinery and more was represented by fertilizer and related capital resources.

Total labor input was smaller. The total of capital used in crop production, excluding land, was smaller after consolidation.

Farm consolidation seems to result in the use of better management and farm practices on the land which is taken over. Output from a given land area tends to increase accordingly. Thus, consolidation tends to result in a more efficient farm unit, with higher returns for the resources used.

The Major Reason

But this is to be expected as people leave agriculture. Most of those leaving have been at the greatest income disadvantage because of shortages of capital or farming knowledge and skills. Aside from farmers who retire or die, "income prospects" is the major reason that operators leave.

This is one important difference between farming and other industries. If the operator of a grocery store decides to give up the business and move to another occupation, chances are that the "building resource" will move out of grocery retailing too. It may

Part–Time Farming

(*Continued from page* 23)

and more productive in economic terms than otherwise would be the case.

Perhaps the only situation where part-timers affect farm prices to any extent is in local markets where they and full-time producers sell side by side. This problem will lessen with the passage of time. Larger volume producers are tending to sell to larger volume buyers at more distant points.

What Of the Future?

Reliable estimates indicate that considerably fewer farmers will be needed to produce the nation's food. These same estimates indicate the present adjustment problem will continue for some time. If this trend persists, then commercial farmers in the foreseeable future will have to keep investing still more heavily in labor-saving and other technological improvements. Not all farmers will be in a position to make these investments; then, they will become part-timers instead. In effect, these people will still be able to make a living from a fully depreciated farm operation, plus part-time off-the-farm work.

Furthermore, the number of people going into part-time farming will be conditioned by other job opportunities available. Workmen with low job security have traditionally considered a small farm to be a measure of family security. Should unemployment remain higher than six percent of the labor force for any length of time, small farms would look appealing to more men. However, if unemployment should drop and level off at a low rate (3 percent or less) for any extended period, a small, part-time farm would have less appeal as a security measure.

It looks, then, as though we will continue to have part-time farming for a long time. The number coming out of agriculture ought to decrease as the adjustment in number of farmers in commercial agriculture stabilizes. The long-time outlook is for a fluctuating number as economic conditions dictate and as country living continues to be attractive or unattractive to working people.

be converted to an apartment house or a drug store. This kind of shift seldom takes place as a family gives up farming. Like the grocery store building, someone takes it over. But unlike the grocery store, the new owner keeps right on producing the same products.

And, as this study indicated, the new owner may do better than the man who left. So the labor force can shrink without shrinking the farm production plant. Output can increase through this process. This is exactly what has been happening over the last 20 years. Operators with more capital and managerial skills have stayed on and enlarged their farms. Those who have left have, on the average, possessed less capital and management skill.

This material is adapted from the Iowa Farm Science, College of Agriculture, Ames, Iowa.

Earl O. Heady is professor of agricultural economics and executive director of the Center for Agricultural and Economic Adjustment at Iowa State. Randall A. Hoffmann is assistant professor of agricultural economics.

Agriculture's Untold Story

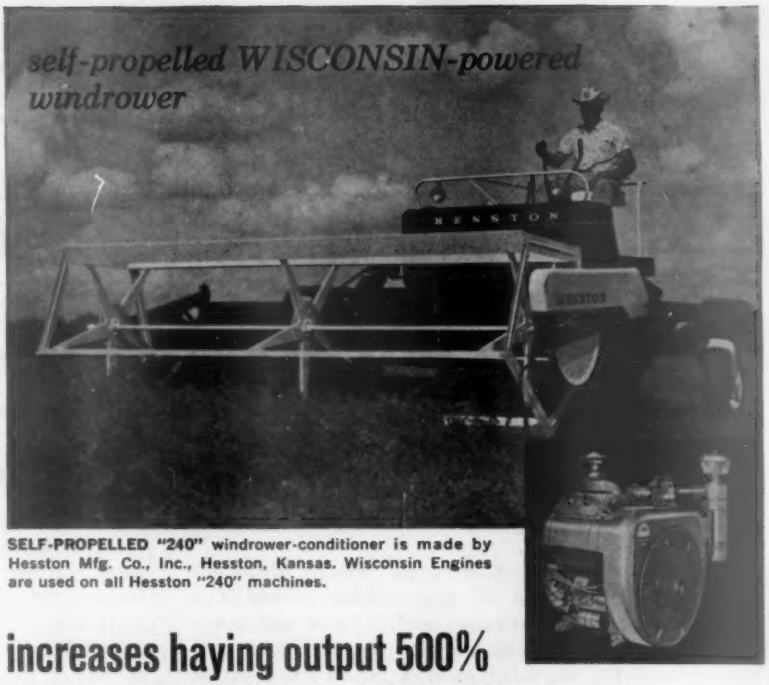
(*Continued from page* 18)

ply because of the emotional impact of the word as it would be to accept regulation without thinking simply because it could mean a few more dollars income. Both reactions simplify the question. Farmers need to ask themselves just how much of what they call their freedom is involved in agreeing to plant 80 instead of 100 acres of corn.

There is no right or wrong answer to these questions. They involve value judgments. It is important that farmers see them as value judgments.

It is impossible to sell a news story on this basis — that it concerns man's freedom, or his prosperity, or the future relationship between men and their government. But this is why the farm story is important. This is why farm leaders and newspapermen need to work together to tell this story.

End.



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Order from the Service Section, Watt Publishing Co., Mt. Morris, Ill.

How to Figure Equipment Costs

Here is, step-by-step, a definite system to help you determine the costs of major farm machinery.

● NO ONE NEEDS TO TELL a farmer that owning and operating farm machinery is expensive. Yet he continues to search for way to cut production costs and increase income.

Investing in more machinery can reduce production costs per unit of output and thus increase income. This is true if production increases and if labor and power costs drop enough to make up for the increase in machinery cost. On the other hand, a farmer's net income can be reduced if he buys and uses a machine with no production increase or saving in production costs.

Farmers are also using joint ownership and exchange work to reduce machinery costs. This takes less original investment per farmer, and the cost per hour of use is greatly reduced by spreading the annual ownership cost over a larger number of acres.

Two neighboring farms may join in purchasing harvesting equipment. They may share title to all equipment. Or one farmer may buy one piece of equipment and the other farmer buy a different piece of equipment.

By determining the actual costs involved in owning and operating these machines each year, the farmers can establish a business agreement in the use of this equipment which treats both fairly.

To seriously consider costs of owning and operating farm machinery has other applications in the farming business. Machinery dealers are renting farm machinery to farmers. The farmer picks the machine up on a specific date, uses the machine, and then pays for the hours of use or the acres covered, depending upon the payment system. A careful analysis of costs may show that although the cash costs seem high, this may be the cheapest way to operate.

Table 1. Hours of Operation Per Acre

Kind of Equipment	Size	Time per acre in hours
Plow	2-14"	1.1
"	2-16"	1.0
"	3-14"	.7
"	3-16"	.6
"	4-14"	.5
"	4-16"	.5
Harrow, disc and spring tooth	8'	.4
Harrow, spike tooth	20'	.2
Fertilizer spreader	8'	.5
Grain drill	8'	.5
Corn planter	2 row	1.0
" "	4 row	.5
Pressure sprayer	20' 100 gal.	.1
Cultivator	2 row	.7
"	4 row	.4
Mower and/or conditioner	7'	.4
Side delivery rake	8'	.4
Buck rake	10'	.8
Pick-up-baler (1 1/2 tons/acre)		.5
Forage harvester—corn-grass silage		1.0
" " hay and straw		.5
Combine	6'	1.2
"	10'	.6
Corn picker	1 row	1.4
" "	2 row	.7

When Should You Trade?

The question of when to trade for a new machine can be answered similarly. What are the relative costs of ownership and repair? Will the costs of operation be higher if the old machine is kept another year? What is the risk of a breakdown? How much will have to be spent to keep the old machine in shape? These questions should be considered and a business-like decision reached.

A definite system should be followed in determining the costs of major harvesting machines. The following case shows how this might be worked out for a pick-up baler.

First, decide approximately how many hours the machine would be used in one year. Table 1 presents the information needed to determine about how many hours the machine will be used.

Here's how to use Table 1:

	Example
1. Determine the acreage for a particular job	40 acres of hay
2. Determine number of times per year the machine will go over acreage	2 times with pick-up baler
3. In Table 1, find hours required to go over one acre	.5 hours per acre
4. Multiply number of acres, times number of times over the acreage, times hours needed per acre	40 x 2 x .5 = 40 hours use per year of pick-up baler in haying

In this example, the pick-up baler would be used 40 hours per year in haying. There might be other uses for the machine during the year such a baling straw.

Once the hours a machine is to be used in one year

(*Continued on page* 35)

Table 2. Cost For Each Hour of Using Farm Machines***

(Per $100 of New Cost)

Machine	Cost per hour of use per $100 of new cost* — Hours used per year						
	20	40	50	60	100	150	250	350
Tractor plow	$.600	$.319	$.263	$.226	$.152	$.120	$.108	$.103
Tractor disk harrow	.575	.295	.238	.202	.127	.095	.083	.078
Spring-tooth harrow	.495	.253	.210	.179	.115	.100	.088	.083
Spike-tooth harrow	.487	.250	.202	.171	.107	.082	.070	.065
Roller	.432	.220	.177	.149	.118	.103	.091	.086
Soil pulverizer	.483	.245	.198	.167	.103	.088	.076	.071
Endgate seeder	.512	.275	.252	.238	.208	.193	.181	.176
Grain drill	.496	.258	.218	.179	.149	.135	.122	.117
Corn planter	.500	.263	.215	.184	.153	.138	.126	.121
Field sprayer	.745	.383	.310	.262	.165	.117	.105	.100
Rotary hoe	.573	.293	.236	.200	.125	.110	.098	.093
Tractor cultivator	.662	.341	.272	.234	.148	.106	.078	.073
Rotary cutter	.659	.338	.273	.232	.146	.104	.086	.081
Tractor mower	.679	.358	.293	.252	.166	.124	.106	.101
Dump rake	.742	.379	.306	.259	.162	.114	.102	.097
Side-delivery rake	.591	.312	.256	.219	.145	.130	.118	.113
Tractor buck rake	.657	.337	.272	.231	.145	.114	.102	.097
Hay loader	.746	.383	.318	.263	.166	.134	.122	.117
Forage harvester**	.671	.350	.286	.244	.158	.116	.098	.093
Forage blower	.651	.330	.266	.224	.138	.096	.068	.063
Pickup baler (auto tie)**	.657	.336	.272	.230	.144	.102	.074	.069
Hay conditioner	.745	.383	.310	.262	.165	.117	.105	.100
Swather	.662	.341	.284	.235	.149	.134	.122	.117
Combine**	.745	.383	.310	.262	.165	.117	.088	.083
Corn binder	.765	.402	.330	.282	.185	.170	.168	.153
Stationary silage cutter	.75	.387	.315	.267	.170	.138	.126	.121
Husker-shredder	.735	.372	.300	.252	.155	.107	.068	.063
Corn picker	.745	.383	.310	.262	.165	.117	.105	.091
Manure loader	.738	.375	.302	.255	.158	.110	.086	.076
Manure spreader	.568	.289	.233	.195	.122	.084	.068	.063
Feed grinder	.571	.292	.235	.198	.125	.093	.081	.076
Portable elevator	.568	.289	.233	.195	.122	.107	.095	.090

	60 hr. per yr.	150 hr. per yr.	300 hr. per yr.	500 hr. per yr.	750 hr. per yr.	1000 hr. per yr.	1500 hr. per yr.
Wagon gear and box	.196	.084	.047	.039	.036	.035	.033
Tractor	.196	.084	.047	.032	.025	.023	.021

*Based on 4 1/2 per cent of new cost as total annual charge for interest, housing taxes and insurance.

**Operating costs such as fuel, oil, grease, wire, twine, etc. not included.

***Reproduced by permission from Agricultural Engineers Yearbook with additions by the authors.

WASHINGTON NEWS

by Jay Richter

"Sticks and Stones May Break . . ."

The struggle over the Kennedy administration's omnibus farm bill will leave some scars in farm circles.

The National Grange was roused recently to some of the angriest language its leaders have ever used in public in a protest against the American Farm Bureau Federation's attacks on the farm bill.

Administration officials, meanwhile, are far from happy with the opposition they encountered from some commodity groups. On the other side, there were charges that the administration used threats and pressure in an attempt to head off opposition from some groups.

The final fate of the omnibus bill had not been settled at presstime. Most Congressional farm leaders, however, believed the best the White House could hope for was a sharply limited version of the original plan for authority to draft new farm programs.

1962 Wheat and Feed Grain Law

Regardless of the fate of the omnibus bill, the Congress is likely to act this summer on new wheat and feed grain legislation for 1962 *crops.*

If present plans are followed, both programs would be based on the surprisingly successful 1961 feed grain program. A wheat plan finding favor with many lawmakers would cut acreage allotments 10 per cent and raise supports to about $2 a bushel. Growers would get payments for making the acreage reduction and keeping the land in conservation cover. In addition, growers could get further payments by idling up to an additional 30 per cent of their allotments.

Final sign-up reports on the 1961 feed grain program were expected to show a reduction of at least 25 per cent from the 1959-60 planting base. This could be cut back later if some growers decide not to make the full 40 per cent acreage reduction they originally contracted for. But in any case, the eventual cutback is likely to be big enough to reduce the feed grain surplus and to force open-market feed grain prices fairly close to support levels in the latter part of next season.

Important Role For Extension

USDA's top leadership has decided that the Extension Service will have a key role in the Department's expanding Rural Areas Development Program.

Extension won't run the program. That will be done by the new RAD Board and its staff. But neither will the Extension Service be bumped onto the sidelines by the activities of other USDA agencies. Specifically, it's been decided that Extension will be responsible for leadership in organizing new State RAD Committees where they don't already exist, and for spurring the organization of county or area RAD groups all across the country.

State and local groups will get technical services and aid from a wide range of USDA program specialists. But the central responsibility for helping to set up the local groups and guiding them to selection of aid tools and development of area programs — this will be an Extension job. This significantly gives Extension public responsibility for a type of activity which will identify the agency in the public mind with overall community development.

Move To Coordinate Research

USDA has been ordered to make a thorough review of changing farm research needs and the possibility of meeting those needs on a cooperative basis with private research agencies.

The order for the review came from the House Appropriations Committee, which, overwhelmed every year with requests for spending on research programs not included in the administration budget, has been pressing for years for development of some effective system of scheduling research priorities.

The Committee's directive calls for a thorough study of research underway in USDA, State Experiment Stations, and private agencies to evaluate the importance of projects now underway in comparison with the research needs not yet met.

The Committee also wants USDA and the Experiment Stations to come up with a more effective method of avoiding duplication of research projects.

Rural Area Study Commission

There's at least an even chance that the current session of the Congress will set up a commission to study the economic development problems of small towns and rural counties.

The Senate okayed the idea in late May. The House, which did nothing about a similar proposal after it passed the Senate last year, is more interested this time and chances for action are rated as fairly good.

Establishment of the proposed study commission would tie in with USDA's plans to extend its Rural Areas Development aid to all rural communities that want help.

Hog Cholera Eradication

For the first time in years, there's a solid prospect of Congressional action on a nationwide program to eradicate hog cholera.

Bills setting up an eradication program have been introduced with bipartisan support in both the Senate and the House. Plans were being made for pressing for committee hearings on both sides of the Capitol

and the administration was expected to give the idea its endorsement when it's called on for an official opinion.

The eradication program would give the Secretary of Agriculture power to ban interstate shipment of "live" virus, and would set up a Federal-State indemnity program. Backers of the bill are not flatly predicting the measure will pass this year, but they're hopeful.

From Security To Political

The two top jobs in the Federal Extension Service — Administrator and Deputy Administrator — were quietly shifted earlier this year out of the competitive civil service and into the political "Schedule C" category.

"Schedule C" jobs can be filled without going through ordinary civil service procedures and their occupants can be removed at the will of the Secretary of Agriculture. The Eisenhower administration put the top extension jobs into Schedule C in 1953, then shifted them back into the civil service category in 1956.

Rural Development

(*Continued from page* 17)

now obtain loans from SBA to build access roads, thus reducing the pressure on working capital needed for normal operations.

Norman C. Clapp, new head of the Rural Electrification Administration, has called on members to help form local improvement committees, industrial development groups, and area-wide associations of electrical systems.

Census Points to Problems

The crucial need for off-farm work as proposed by Public Law 87-27 (Rural Areas Redevelopment) and the need for expanded activity in Rural Areas Development by the USDA are spelled out in recent estimates on underemployment in rural areas. Among workers 20 to 64 years of age living on farms, underemployment is equivalent to a full year of unemployment for nearly 1.5 million workers. Put another way, 1.5 million adults are out of work in rural America, in terms of lost production and wages.

This is the challenge faced by "new frontiersmen" as they set programs for the years ahead.

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Rat and Mouse Control

An illustrated guide and fact book for community-wide rodent control programs with warfarin. Write to the Wisconsin Alumni Research Foundation, 506 North Walnut Street, Madison 5, Wisconsin.

"Do It Yourself" Book

The Sinclair Farm and Home Book gives practical helpful hints to farmers for utilizing what they have available on the farm. Send card to Sinclair Refining Company, 600 Fifth Avenue, New York 20, New York.

Panelized Farm Buildings

New booklet entitled "How to Fabricate and Erect Panelized Farm Buildings" gives complete material list, panelization and truss assembly instructions and erection procedures. West Coast Lumbermen's Association, 1410 South West Morrison, Portland 5, Oregon.

Silage Newsletter

The use of molasses in silage making is described in this new illustrated Silage Newsletter issued by Pacific Molasses Company, 215 Market Street, San Francisco, California.

Chemical Weed Control

E. I. du Pont de Nemours & Company would be pleased to send you a copy of the April Better Farming Methods four-page educational insert that explains the use of efficient chemicals for controlling weeds and brush. Write to Du Pont, Room N-2543, Wilmington 98, Delaware.

Grain Storage Buildings

This free booklet gives data for planning and arranging efficient storage and drying structures. Armco Drainage and Metal Products, Inc., 5681 Curtis, Middletown, Ohio.

Cattle Spray Guide

Chemagro Corporation would like to send you a free copy of their application guide for spraying cattle with Co-Ral. Chemagro Corporation, P. O. Box 4913, Kansas City 20, Missouri.

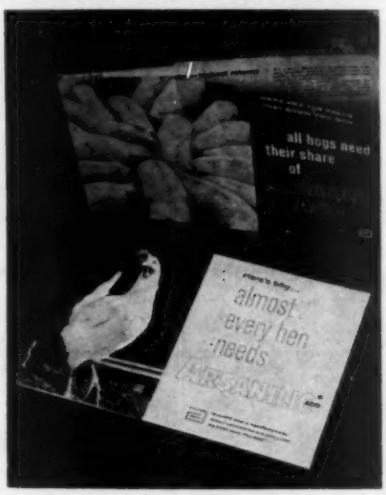
Planning For Profit

For your free copy of a 36-page book of feedlot plans and mechanical feeding systems, write to Harvestore Products Division, A. O. Smith Corporation, Kankakee, Illinois.

Fertilizer Reprint

Get your free copy of "Put Life Into Your 'Lost Acres'," a 20-page booklet of fertilizer information from W. R. Grace & Co., Davison Chemical Division, Baltimore, Maryland.

Arsanilic Acid In Hog and Poultry Feeds



These two new eight-page Abbott booklets supply information about the feed additive, Arsanilic Acid. Write to Abbott Laboratories, Chemical Marketing Division, North Chicago, Illinois.

New Silage Preservative

This special report on the use of Silotracin for better silage preservation will be sent to you by addressing a card to Commercial Solvents Corporation, 260 Madison Avenue, New York 16, New York.

Weed Control Information

Weed control for specific crops can be obtained by writing to the Chemical Division, Pittsburgh Plate Glass Company, One Gateway Center, Pittsburgh 22, Pennsylvania. Information leaflets are provided for rice, cotton, seed-crop alfalfa, onions, grass and legume seed, soybeans, ornamentals, cranberries and grapes, sweet potatoes and other crops. Please mention your particular interest.

Mite Control for Fruit Trees

How to achieve all-season mite control on deciduous fruits is the subject of a new brochure published by Niagara Chemical Division, Food Machinery and Chemical Corporation, Department A, Middleport, New York.

Power Sprayers

This 16-page booklet describes Allis-Chalmers' 1961 complete line of precision power sprayers. Allis-Chalmers, Farm Equipment Division, Milwaukee 1, Wisconsin.

New Literature on Insecticides

Three general booklets cover uses of Sevin on cotton, fruits and vegetables. Six special booklets explain the use of Sevin on beans, tomatoes, corn, grapes, tobacco, shade trees and ornamentals, and another one deals with Sevin sprayable applications on cotton. Nine question-and-answer booklets for the West Coast describe Sevin applications on the following crops: Apples and pears, plums and prunes, peaches, cherries, grapes, cotton, corn, filberts, and non-bearing citrus.

Copies of the new booklets may be obtained by writing to CRAG Agricultural Chemicals, Advertising Department-Distribution Section, 30-20 Thomson Avenue, Long Island City 1, New York.

Pipeline Marketing Systems

A 24-page illustrated brochure offered by the De Laval Separator Company, Poughkeepsie, New York, provides a practical guide to the planning of a pipeline milking system. The factors involved in selecting a system, and various type parlors are among the subjects covered.

Plastic Mulch

Here are two bulletins that describe the advantages of using black plastic mulch to increase the yields of vegetable crops. Gering Plastics, Agricultural Department, Kenilworth, New Jersey.

Small-Building Structures

Brochure describes pre-engineered structures for small-building needs. The six-page brochure, No. BD-260, is illustrated throughout and describes the flexibility of design, rugged economy, and ease of construction of the weather-tight buildings. Write to the Building Division, The Parkersburg Rig and Reel Company, Parkersburg, West Virginia.

Food Retailer—

A Vital Link Between Farm and Consumer

by Merle Thomas

● Food retailers are a vital link in moving food from farm to consumer. At the same time, we recognize agriculture as an important and basic supplier of about 80 percent of what we sell. Both retailers and farmers have a mutual interest in satisfying the consumer.

Mrs. Consumer is our boss and the farmers' boss. Some people question this. I realize that the consumer does not always appear as the primary decision-maker in marketing. Competition is often the primary factor in deciding what products appear on the supermarket shelf, but I can assure you the consumer is the ultimate boss and all of us in the business of producing and marketing food must pay careful attention to her needs and desires.

The consumer expects the products she desires to be in sufficient quantity, of uniform quality, and in a constant supply. This desire is reflected by supermarket buyers in their buying habits. It applies to asparagus, apples, beef, pork, and even to the wheat for flour to make our bread.

The "Good" Old Days

Nostalgia for the past is the cause for much misunderstanding in farm programs and food marketing. The day of the small family farm, hand milking — with a squirt at the barn cat, chickens in the barn lot, and the old thrashing dinners are dreams of the past — just as is the small corner grocery store, exchanging eggs for the week's groceries, and the buying of all produce needs from nearby farms.

Change has been the keynote of food distribution. With an expected 80 million more people in the next 20 years and one-third of the women now working away from home, change has been, and will continue to be necessary if we are to adequately feed our population.

What has this change meant to food retailing? For one thing it has meant growth. In 1959 food retailing was a 53 billion dollar business — 10 billion dollars more than the automobile industry. Corporate chains did 42 percent of this total, the voluntary and cooperative organizations did 43 percent and 15 percent of the business was done by unaffiliated stores. I point this out to show that the big change in the reduction of buyers in a market may be more due to the buying habits by corporate chains. In fact, Kroger and many other chains have actually decentralized their buying in recent years.

Sales Per Store

Another change has been in the amount of sales per store. In 1952 all supermarkets averaged about half a million dollars a year. Last year the average was over one million dollars. Many stores did as much as 5 to 6 million dollars in sales per year. In Kroger we now have 2,350 fewer stores than 20 years ago but our sales are seven times greater.

An average supermarket carries between six and seven thousand different items. One of our division's grocery departments was offered a total of 600 new items. Of this number, 168 were accepted and 132 old items discontinued. This is an indication of the terrific competition existing for supermarket shelf space. It is an important fact to be recognized by growers and suppliers. Products must readily meet the approval of the consumer to win space on this important marketing doorstep.

There has been a shift from a seller's market to a buyer's market in food marketing. This happens any time there is a heavy supply situation. It is even true when you go to buy an automobile . . . you shop around to get the best price possible. Our buyers react the same way when buying

(*Continued on page* 33)

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BETTER FARMING METHODS is unique among agricultural magazines. Never before has a magazine approached the problems of farmers from BFM's editorial position -- exploring the "why" of agricultural change instead of the "how" of agricultural production. Its enthusiastic reception and continued high readership is testimony to its unique service to agriculture's "Change-Agents".

Commercial companies are also becoming increasingly aware of BETTER FARMING METHODS as an effective way of reaching the leadership of agriculture. The March issue of BFM carried a greater dollar volume of advertising than any previous month in the 33-year history of the magazine.

Thirteen new advertisers played a major part in reaching this volume in the March issue. Each was a new account whose messages had not appeared in BFM prior to 1961.

This acceptance by audience and advertisers alike emphasizes the important role played by BETTER FARMING METHODS in the development of modern agriculture.

Serving

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25,000 Influential Farmers

50,000
CHANGE-AGENTS

Watt Publishing Co. Mount Morris, Ill.

Food Retailer —

(*Continued from page* 31)

merchandise for our stores. Products sold through a strong bargaining association will therefore usually command a better price.

As I see it there are three factors that have caused some misunderstanding about food chain buying and merchandising practices in recent months. One is the very competitive situation existing at retail and processing levels, two is the heavy supply situation in most farm commodities, and three is the lack of effective bargaining power on the part of most farm commodity groups.

As a food retailer we welcome strong bargaining efforts by agriculture because we like to do business with professionals. We know that effective bargaining not only includes price but it also means providing a constant supply of a uniform quality product. I must also add that even with bargaining associations, buyers will continue to buy at the best price available, constant with needs.

Food retailing is a facet of agribusiness that needs to be understood and not feared. We need to use the power of the conference table to solve some of our marketing problems. By so doing, we can all serve the consumer better."

This statement was given at the recent Agricultural Editors' Association meeting in Washington, D. C. It was part of a panel discussion on Farm Bargaining Power.

NEW BOOKS

AGRICULTURAL FINANCE, published by Iowa State University Press, Ames, Iowa.

AUTHORS: William G. Murray and Aaron G. Nelson. PUBLICATION DATE: 1961. DATA: Fourth edition, cloth bound. PRICE: $6.50.

Using too little credit hampers progress. Borrowing too much money leads to bankruptcy. And today, requirements for capital are increasing.

Walking the financial tight rope in these times demands a thorough knowledge or how credit can be used safely and profitably. Murray and Nelson's "Agricultural Finance" provides competent advice on the best way to undertake good financial risks.

Considered the standard reference in its field for many years, the new 4th edition has new coverage — a new approach — a new look.

Part I explains the powerful and necessary tools of credit extension — its terminology, methods, practices and procedures.

Part II informs the borrower as to which lender to select. It portrays the setting in which agriculture must obtain credit — the source of loan funds — the policies and procedures followed by each lender group.

Statistics and references have been brought up to date. Questions and problems clarify the practical application of present financial possibilities to individual problems.

ADJUSTMENTS IN AGRICULTURE — A NATIONAL BASEBOOK, published by The Iowa State University Press, Ames, Ia.

GENERAL EDITOR: Carlton F. Christian, Ohio Agricultural Extension Service. SUBJECT MATTER COORDINATOR AND EDITOR: Mervin G. Smith, Ohio State University. DATA: First edition, cloth bound, 376 pages. PRICE: $3.95.

This "basebook" was developed to fill the need for a unified source book that assembles, coordinates, and interprets data on U. S. Agriculture. It is authored by the nation's leading authorities in the field of agricultural economics. The most up-to-date data available at the time of the writing were used by the authors.

Its objective is to collect the factual background, trends and problems of our agricultural economy, and present them in a useable manner for people concerned with U. S. agriculture.

The main emphasis in the basebook is on farming and the rural community. Some of the adjustments described have far-reaching implications for firms and organizations supplying farmers with goods and services, and marketing farm products.

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FARM TRENDS

A quick summary of developments in agriculture

INCREASING SPECIALIZED FARMING is another trend of significance. Here are some examples of what has happened in the last 30 years in the 33 states mentioned above: Farms raising turkeys decreased from 384,000 to 36,000--with 2,500 farms raising 85 percent of the turkeys in 1959. Farmers growing Irish potatoes decreased from 2,043,000 to 363,000--with 15,000 growing 85 percent of the crop. Farmers growing apples decreased from 2 million to less than 200,000--with 9,000 farmers growing about 85 percent of the crop.

FEED PRODUCTION RECORDS were set in 1960 as farmers produced 168 million tons. That's 3 percent more than 1959 and 24 percent over the 1954-58 average. After using, selling, and giving away all we can, there'll be an estimated 10 percent increase in carryover into 1961-62.

TOTAL EXPENSES OF U. S. FARM OPERATORS for 1961 will be a bit above the 1960 total of $26.3 billion as farm production costs are expected to climb to a new peak this year. A review of 1960 farm production costs shows farmers bought about 25 percent less farm machinery than in the two preceding years.

DIVERTED CORN AND GRAIN SORGHUM ACREAGE reached a 24.6 million acre total on May 26. This is about 1 acre in 4 and more than 24 percent of the average plants in the past two years.

APPROXIMATELY $312 MILLION will be passed out to farmers who have cooperated in the feed grain diversion program. This means that currently a great deal of money is jacking up the economy of the Corn Belt states.

FARM BUSINESS CONDITIONS

Employment same
Parity ratio down
Marketings down
Farm deposits up

ITEMS	Apr. 1961	Mar. 1961	Apr. 1960
PRICES:			
Received by farmers (1947-49 = 100)	88	90	89
Paid by farmers (1947-49 = 100)	121	121	121
Parity price ratio (1910-14 = 100)	79	80	80
Wholesale, all commodities (1947-49 = 100)	119	120	120
Paid by consumers (1947-49 = 100)	128	128	126
LABOR:			
Farm labor, U.S. (dol. per week without board)	46.25	—	45.75
Factory labor, U.S. (dol. earned per week)	91.34	90.71	89.60
PRODUCTION:			
Industrial, physical volume (1947-49 = 100)	159	155	165
Farm marketings, physical volume (1947-49 = 100)	96	104	98
INCOME PAYMENTS:			
Total personal income, U.S. (annual rate, bil. of dol.)	410	410	402
Cash farm income, U.S.[1] (annual rate, bil. of dol.)	—	35	34
EMPLOYMENT:			
Farm (millions)	5.0	5.0	5.4
Nonagricultural (millions)	60.7	60.5	60.8
FINANCIAL (District member banks):			
Demand deposits:			
Agricultural banks (1955 monthly avg. = 100)	100.3	99.8	99.2
Nonagricultural banks (1955 monthly avg. = 100)	99.5	97.0	102.1
Time deposits:			
Agricultural banks (1955 monthly avg. = 100)	141.4	140.1	131.7
Nonagricultural banks (1955 monthly avg. = 100)	142.7	141.8	127.3

[1]Based on estimated monthly income.

Compiled by the Research Department, Federal Reserve Bank of Chicago

FEED GRAIN PRICES for future months will show effects of three forces, according to the latest USDA "Feed Situation" report. The growing season, with planting delayed in the East and growth slowed by cool weather in the Midwest; participation in the feed grain program; and sales of feed grains by CCC to influence prices.

FARM CASH RECEIPTS were up 7 percent from a year earlier during the first four months of 1961. Livestock receipts are 6 percent above . . . receipts from crops 9 percent higher than a year ago. But cash receipts from farm marketing dropped in April and were nearly 5 percent lower than in April 1960.

EXTENSION ECONOMISTS IN OHIO see little hope for a let-up in the cost-price squeeze during the 60's. They point out that there is an "inelastic" demand for farm products. That is, the demand for food and fiber doesn't change much under normal circumstances, except through increases in population. Thus, a small increase in farm production results in a relatively large decrease in farm prices.

PRICE-SUPPORT ACTIVITIES on corn show that at the end of April this year a total of 545,054,368 bushels of 1960-crop corn had been put under price-support loans and purchase agreements. A year earlier, 463,029,418 bushels of 1959-crop corn had been put under support through April 1960.

Figuring Equipment Costs

(*Continued from page* 27)

are known, the costs of using the machine can be determined.

To figure annual costs of owning and operating any machine, follow this step-by-step procedure: The pick-up baler example used earlier is continued:

	Example (Pick-up baler)
1. Determine hours of use (see previous example and Table 1)	40 hours use
2. Get original cost from dealer	$1,800
3. Figure annual ownership cost. To do this, locate No. hours use (40) on Table 2. Read down this column until you come to the correct machine (pick-up baler). Multiply the number of this column and row (.366) times the machine cost in hundreds of dollars (18). This $6.05 is ownership cost per hr. of use. Repairs are included. Multiply this amount times total annual hours use to get annual ownership cost.	18 x $.336 $6.05 $6.05 x 40 hrs. $242.00
4. Figure the annual operating cost (not including repairs) per hour of operation or unit of output, such as number of bales. Cost of fuel and oil, one hired man, and twine, are included in operating costs for the baler. It's assumed that enough tractors are available at no extra cost. If another tractor or more labor is needed, make the charge.	
Fuel and Oil: 40 hrs. x .60 (40 HP tractor)	$24.00
Labor: 40 hrs. x $1 (per hr. labor charge)	40.00
Twine: 4,800 bales (3 ton yield — 50 lb. bales) x $.02	96.00
Total annual operating cost	$160.00
5. Add annual ownership cost to annual operating cost to get total annual cost of owning and operating the pick-up hay baler.	$402.00

These five basic steps can be followed in determining the costs of any farm machine. You'll notice no charge

This illustrates the point that figuring the cost of machinery is of no value unless the answer is put to work in making some farm decision. This information is vital in making such decisions as:

Is it cheapter to own a baler and hire the silo filled than to own a forage harvester?

Is it better to own a particular machine or should the work be done by a custom operator?

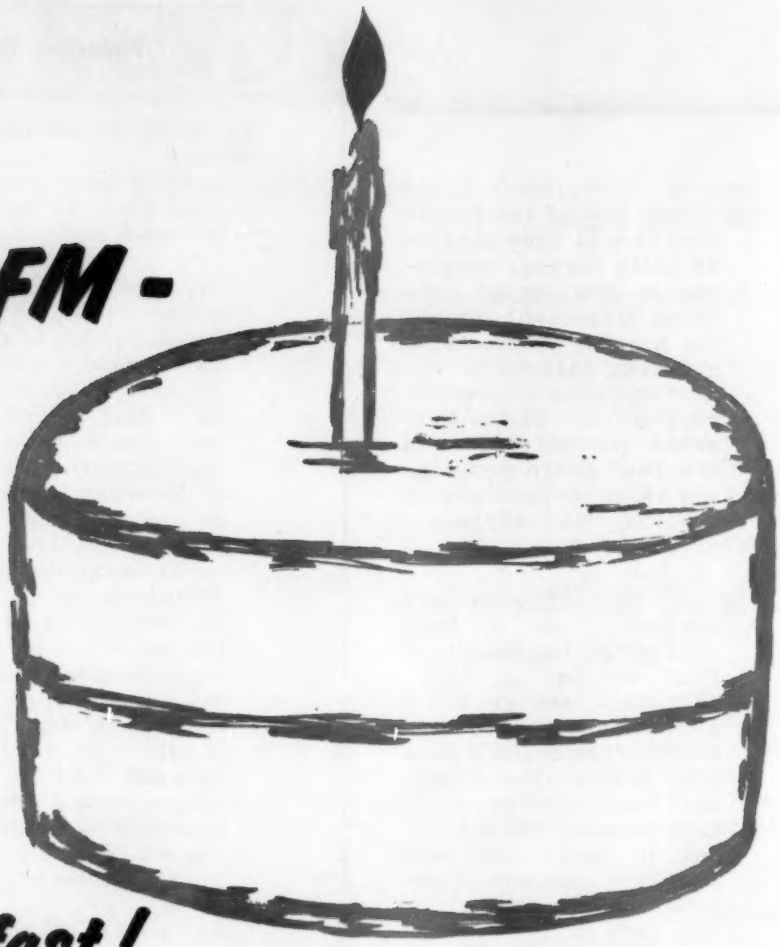
Should a new or used machine be bought?

What is a fair split of costs under joint ownership?

Who should pay what costs and how much if work is traded?

This feature was adapted from a bulletin entitled "Costs of Farm Machinery" by Orrin I. Berge and Glen C. Pulver of the University of Wisconsin.

The new BFM -



one year old and growing fast!

This July, 1961 issue marks the first anniversary of the new BETTER FARMING METHODS.

The new BFM's first year was sometimes frustrating, sometimes gratifying, always challenging. Our efforts to explore and explain the "why" of agricultural change were well-received. . .by farmers, ag leaders, officials and educators. Once and for all, the readership of BETTER FARMING METHODS proved thousands of farmers are interested in more than production information.

With the January, 1962 issue, BFM will increase its coverage to include another 25,000 top-income farmers. Your reception of the new BFM has encouraged this growth.

BETTER FARMING METHODS

BPA

WATT PUBLISHING CO., MOUNT MORRIS, ILLINOIS

Editorial

(*Continued from page* 38)

painful for agriculture over a period of time than accepting the consequences of a mounting full-capacity production.

Can agriculture manage its own output? Contract production of agricultural commodities has set in motion the machinery for producing for a market. The contractor can estimate his market demand and then sign up producers to meet his goals. There are instances where this is actually being done in the livestock, fruit, and vegetable industries. The move to bigger cooperatives and consolidation of small cooperatives certainly fits into the scheme of voluntary control of production.

However, the great bulk of agriculture production will find it most difficult to trim production without "a lot of help from the government." If and when this ever comes about, let us hope that farmers will have the controlling voice as to whether or not it is what they want. A controlling voice is not merely voting to choose between a specified program or continued full-capacity production.

More Rural Industry . . .

(*Continued from page* 13)

industries in rural areas is beneficial not only to the industry (assuming other location factors are favorable) but to the agriculture in the area and to the various units of government.

Farmers in particular stand to gain when a suitable new employer enters their community although at first many of them may think only of the added competition for local labor. Almost immediately, however, a new and expanded market for farm products opens up and the necessary farm adjustments are quickly made.

The result is an almost certain increase in per farm and per capita farm income and a renewed interest in the economic, social and religious life of the community. Instead of seeking outside aid the community finds itself a net contributor to governmental services around the world.

Save "Good" Farmland

In these days of tension and constant threat of war, the dispersion of industry throughout the country has another factor to commend it — that of physical survival. To this extent, also, it merits the support of governments everywhere. Governments, however, have a further responsibility and that is to cooperate with local groups to the extent necessary for a planned and orderly development. To do this, certain rural areas should be set aside (zoned) for industries, certain others for commercial use and "strips" along the principal access roads reserved for residential construction. Above all, farmers should insist that sufficient acreages of "good" land be zoned for agriculture exclusively. This will remove these lands from much speculative influence and make it possible for farmers to enjoy the benefits of commerce and industry without having to compete with them for "standing room".

Here truly is one example of a development which permits farm people to eat their cake and have it, too.

The secret is to be found in full employment under conditions which preserve the best farming practices and the highest type of community life.

End.

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EDITORIAL

John W. Hough

The Choice is Yours?

Many of our city friends have looked at agriculture's over-production problems and scoffed at the lack of planning. This is planning to assure that supply would come somewhere near meeting demand. They have pointed out that a factory can govern its production according to the demand and then ask why agriculture cannot do the same thing.

Agriculturists have always thought they knew exactly why this couldn't be done. How could hundreds of thousands of unrelated production units ever be expected to work together in planning next year's production quotas? There are other reasons that could be used to show the objections in planning production to meet market demands but this question has always been one of the most important and most difficult to answer.

What once may have seemed an impossibility is now beginning to carry the ring of possibility and probability. We want to share with you some thinking on this subject that we recently came across in our reading.

"Agriculture might take a cue from nonfarm industries and cut production when demand and price for farm products drop," implies Economist Arnold Paulsen of Iowa State University's Center for Agricultural and Economic Adjustment.

"The agricultural industry must either face the consequences of full-capacity production," he said, "or face a problem of output management just as do some nonfarm industries with short- or long-run excess capacity."

"Over the past 30 years," he explained, "total farm output has been expanding. Individual producers have been selling their produce regardless of the price-depressing effects."

"When most farm operators now produce at full capacity," Paulsen pointed out," some products go into storage, but so many still are marketed that farm prices and incomes are low.

"The same thing happens in many nonfarm industries if they use their full productive capacity when demand is limited. But not all industries produce at maximum capacity. Firms sell what they can at an established price. When consumers don't buy all the production at that price, the industry cuts back on production. In other words, when prices drop, industrial output drops. The result is more stable prices in some nonfarm industries.

"Farm operators, like some nonfarm businessmen, may want to decide on and accept some form of output management." Paulsen listed three broad types of output management possibilities for agriculture.

"(1) Agriculture might manage its own output as the steel industry does — with no government regulating agencies — and bring forth its output to meet demand at relatively stable prices. This would require collective action among all farm operators.

"(2) Agriculture might manage output more as the oil industry does — perhaps asking federal and state agencies to estimate demand for the coming year at desired prices and to distribute allowable production levels to all producers in each state.

"(3) A land-retirement program might make it possible for the federal government to buy up the excess capacity that has been created — leaving the rest of the agricultural production capacity free to operate on an open market to achieve satisfactory prices."

Paulsen said it's possible that farm operators could manage output "with no help, with a little or with a lot of help from the government." It wouldn't be painless, but it might be less

(*Continued on page* 37)

Remarkable Phosdrin® Insecticide lets growers control destructive insects on many crops up to 24 hours from harvest

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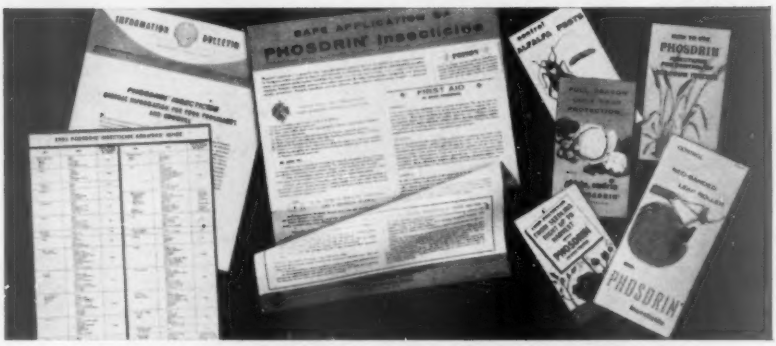

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To obtain any of this material, simply fill out the coupon below and send it to Shell Chemical Company, Agricultural Chemicals Division, Dept. 4367, 50 West 50th Street, New York 20, N. Y.

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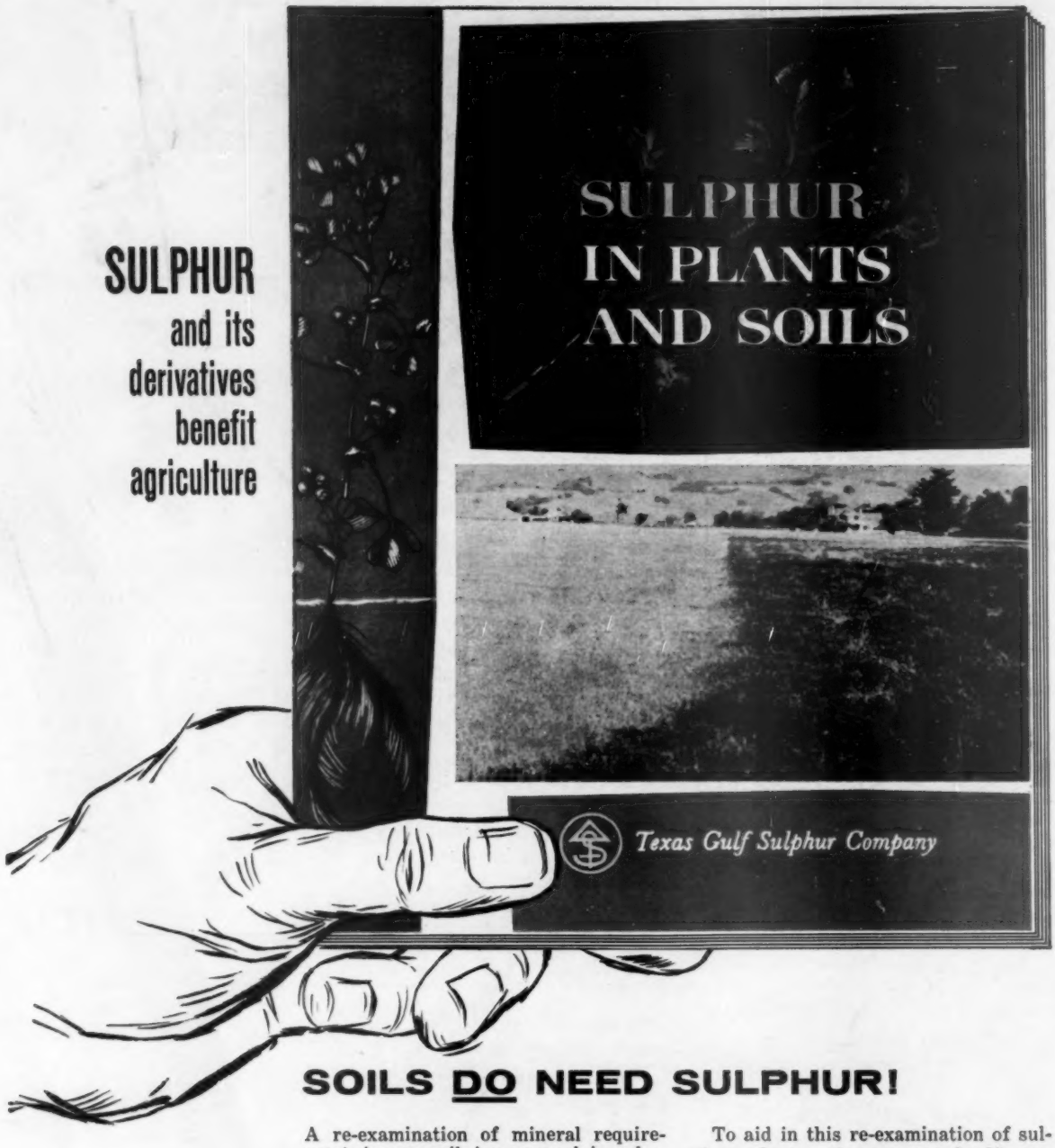


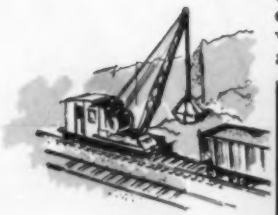
SOILS DO NEED SULPHUR!

A re-examination of mineral requirements in crop-soils is very much in order.

In the wide and successful search for providing better soil foods based on the important triumvirate 0-0-0, there appears to be somewhat of a let down in studies of other soil minerals–the need for sulphur, for example. Tests indicate that there is a danger–even actual existence – of a sulphur deficiency in soils where certain crops requiring sulphur are grown.

To aid in this re-examination of sulphur values, we have prepared a 28 page booklet titled "Sulphur in Plants and Soils" which is edited by a well known authority on this subject. Write for copies not only for yourself but for others you feel would be interested.

This brochure is Section V of our extensive Sulphur Manual discussing many phases of Sulphur. Section VI — Sulphur in Plant Diseases — will be available shortly.



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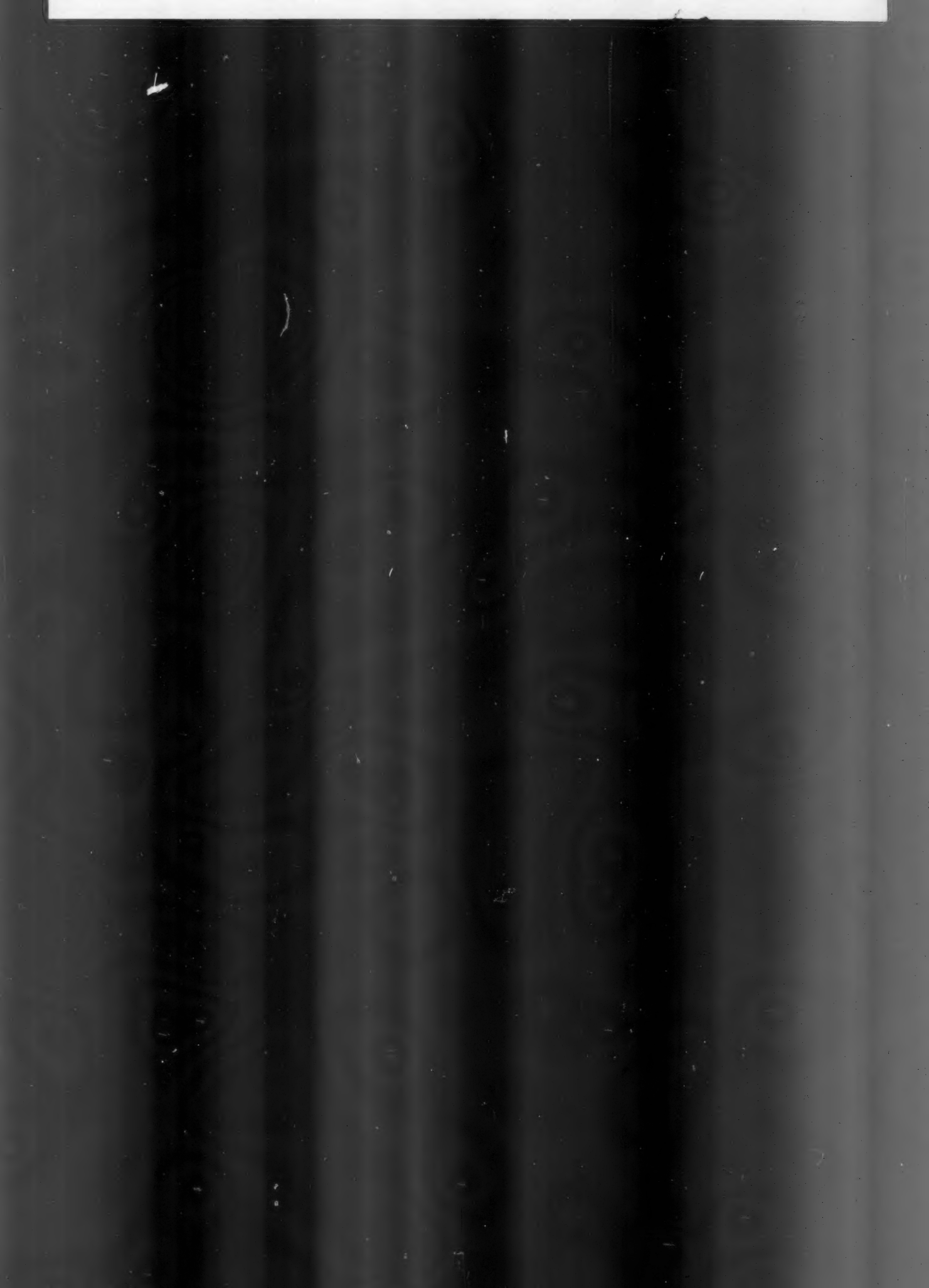
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